

ABSTRACT

The invention relates to a spectroscopy system and improved membrane formation techniques. The system has at least one light source operable to generate a source beam and a prism having a rear surface. A support block is disposed on the rear surface of the prism. The support block is formed with at least one sample well having a center and defines a substantially vertical rear cell surface having a center. The source beam is aimed at the sample well. A syringe filled with a membrane solution and having a needle with a distal end disposed in front of the sample well. The distal end is aimed at a point above the center of the rear cell surface. The syringe is operable to eject a steady stream of membrane solution from the needle onto the circular rear cell surface thereby forming a membrane defining at least a portion of a layer under test. The membrane has a substantially uniform thickness that covers substantially the entire rear cell surface. A detector operable to detect light that is at least one of reflected and scattered by the layer under test.